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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/667,237	09/22/2000	Stephen J. Reinl	34150/0013(42205)	1339

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EXAMINER
SHIBUYA, MARK LANCE

ART UNIT	PAPER NUMBER
1639	

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/667,237	REINL ET AL.	
	Examiner	Art Unit	
	Mark L. Shibuya	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) *5-8,16-48,50 and 51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,9-15 and 49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2/28/05, 3/8/04, 7/25/02, 6/25/02
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

HC

DETAILED ACTION

1. Claims 1-51 are pending. Claims 5-8, 16-48, 50 and 51 are withdrawn from consideration. Claims 1-4, 9-15, and 49 are examined.

Election/Restrictions

2. Applicant's election with traverse of Group I, claims 1-11 and 49, and the species of species of the first domain being the immunoglobulin V_H and the species of the second domain being immunoglobulin V_L and the species of the repeated pattern being random or no exact sequence, in the reply entered on 4/30/2003, is acknowledged. The traversal is on the ground(s) that that the molecules in Groups II and IV are members of the libraries of Groups I and III. Furthermore, the nucleic acid molecules merely encode the polypeptide molecules of the other groups. A search for any one of the Groups I-IV would inherently involve searching for the other Groups and therefore there is no additional burden. Accordingly, Groups I-IV should be examined together.

Applicant's arguments regarding Groups I, (claims 1-11 and 49, drawn to libraries), and II, (claims 12-15, drawn to a dual-domain nucleic acid molecule selected from the library of any of claims 1-8), are found persuasive, and Groups I and II are rejoined, hereby.

However, applicant's arguments regarding Groups I-II and Groups III and IV are not found persuasive because the polypeptide molecules of the library of dual-domain polypeptides are distinct from libraries of nucleic acids, and may be encoded by

sequences that do not "consist of a repeated pattern of degenerate repeated triplet nucleotides", as in claim 1, due to the degeneracy of the genetic code. In this regard, applicant's claims to polypeptides and libraries thereof, are considered to claim products by process. Whether or not a polypeptide has been translated from a nucleic acid comprising a "repeated pattern of degenerate repeated triple nucleotides" cannot be ascertained by mere inspection of the polypeptide, because the polypeptide has a different molecular structure and function from the nucleic acid that encodes it. Furthermore, nucleic acid dual-domain libraries exist and are used without the requirement of their translation into polypeptides; for example, aptamers, (see, claims 5 and 6), or probes and antisense oligonucleotides (see, claims 7 and 8). And polypeptide libraries may be synthesized and used, without translation from nucleic acids that might encode them.

Polynucleotides and polypeptides have acquired a separate status in the art, as demonstrated by journals dedicated in the main, if not exclusively, to one or the other; and by sequence databases exclusively dedicated either to nucleic acids or to proteins. Thus the searches for the polynucleotide and polypeptide libraries of the claimed invention would not necessarily be coextensive. Each of the groups require separate consideration and search not required for the other groups. Therefore there would be an undue administrative burden in examining all of Groups I-IV, as applicant requests.

3. Applicant's election with traverse of the species of linker as SEQ ID NO: 12, in the reply entered on 12/6/2004 is acknowledged. The traversal is on the ground(s) that

the requirement for a designated sequence for the randomized linker is inappropriate and illogical considering the invention. Applicant argues that a specific sequence may be encompassed by any one of the members of the claimed library as claimed in the elected claims. However, no claim recites the sequence, none are limited to any specific linker sequence and all of the claims are directed to a library which has multiple different sequences contained therein. The is no preferred linker until one measures relative biological activity of each with attached domains. Accordingly the election of species requirement should be withdrawn in its entirety.

This is not found persuasive. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or *clearly* admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. Applicant is respectfully reminded that upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a). See Requirement for Restriction/Election, mailed 3/31/2003.

4. Applicant's election without traverse of a species of a first domain that is coding and without particular binding properties and a species of a second domain that is coding and without particular binding properties, in the reply entered on 6/6/2005, is acknowledged. Applicant's maintaining of the earlier traversals of the restriction and species requirements is acknowledged. Applicant states that claims 1-4, 9, 10, 11, and 49 read on the claimed invention.

5. Claims 5-8, 12-48 and 49-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species and inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction / species election requirement in the replies entered on 4/30/2003 and 12/6/2004.

6. In regard to dependent claim 50, withdrawn from consideration as drawn to a non-elected invention, the examiner has required restriction between product (claim 49) and process of making claims (claim 50). Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are

governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

> In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.
>
> Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Priority

7. This application claims benefit of US Provision 60/155,978, filed 9/24/1999.

Information Disclosure Statement

8. The information disclosure statement, entered 7/25/2002, fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each publication listed that is not in the English language. It has been placed in the application file, but the information referred to therein in regard to the French publication, authored by Girard and Hirth, has not been considered. No English translation was found.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-4, 9-15, and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims contain within them confusing antecedence and seemingly ungrammatical usage of verb tenses, which blur the claim limitations and their relationships to the claimed elements, and thereby render the claims vague and indefinite. For example, claim 1 recites the language "a linker which is a member of a randomized library of linkers that . . . (ii) consist of a repeated pattern . . .", which appears to be grammatically incorrect because the word "consist" is of the wrong tense.

In claim 1, line 1, there should be a comma after the term "molecules".

Claim 2 probably should read "wherein said repeated patter of degenerate repeated triplet nucleotides of said linkers ***has*** the following properties".

In claim 49, line 1, there should be a comma after the term "molecules".

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-4, 9, 12, 13 and 49 are rejected under 35 U.S.C. 102 (a,b,e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cwirla et al., Proc. Natl. Acad. Sci. USA, vol. 87, pp. 6378-6382, August 1990.

The claims are drawn to a library of dual-domain nucleic acid molecules each of which has (a) a first and a second domain; (b) separating and linking said domains, a linker which is a member of a randomized library of linkers that (i) vary in size and nucleotide sequence, (ii) consist of a repeated pattern of degenerate repeated triplet nucleotides, and variations thereof.

The claims are drawn to members of a randomized library of linkers that "consist of a repeated pattern of degenerate repeated triplet nucleotides." However, nucleic acid molecules, in and of themselves, do not have "degenerate" nucleotides. Thus the claims recite a limitation based upon the manner in which the linker library is made. As such, the claims are considered to claim products by process. The claims recite the connecting term "has", which is considered to be open claim language.

Cwirla et al., throughout the publication and abstract, and, e.g., at p. 6378, para 4, Figure 1, teach, for expression in phage, all possible hexapeptides with the sequence 5'-CTCT CAC TCC $(NNK)_6$ GGC GGC ACT GTT GAA AGT TGT-3', where N is A, C, G, or T and K is G or T, which reads on a library of dual-domain nucleic acid molecules,

each of which comprises a first domain that is CTCT CAC TCC and a second domain that is GGC GGC ACT GTT GAA AGT TGT; and where $(NNK)_6$ is considered to read on a linker that separates and links said domains, and where $(NNK)_6$, considered to be a linker, can be a member of a randomized library of linkers that (i) vary in size and nucleotide sequence, and (ii) consist of a repeated pattern of degenerate repeated triplet nucleotides. Criwla et al., at e.g., p. 6382, para 2, teach generation of diversity by methods of degenerate synthesis of a codon, symbolized by the motif $(NNK)_6$. It would have been obvious, in the course of routine optimization of diversification, to have further reduced K to a single nucleotide choice, such as T, thereby satisfying the limitations of claims 2 and 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-4, 9, 12, 13 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Holliger et al.**, U.S. 5,837,242, **Keck et al.**, US 6,040,431, and **Dower et al.**, WO 91/19818.

The claims are drawn to a library of dual-domain nucleic acid molecules each of which has (a) a first and a second domain; (b) separating and linking said domains, a linker which is a member of a randomized library of linkers that (i) vary in size and nucleotide sequence, (ii) consist of a repeated pattern of degenerate repeated triplet nucleotides, and variations thereof.

The claims are drawn to members of a randomized library of linkers that "consist of a repeated pattern of degenerate repeated triplet nucleotides." However, nucleic acid molecules, in and of themselves, do not have "degenerate" nucleotides. Thus the claims recite a limitation based upon the manner in which the linker library is made. As such, the claims are considered to claim products by process. The claims recite the connecting term "has", which is considered to be open claim language.

Holliger et al., U.S. 5,837,242, throughout the patent, and at, e.g., col. 2-col. 3, teach dual domain dimers comprising binding regions of immunoglobulin variable regions linked by peptides of variable lengths, (so called "diabodies"), at col. 5-col. 6, nucleic acid sequences encoding such peptides, and at col. 26, teach phage display selection of diabodies, at col. 28-col. 29, bridging paragraph, construction of large

combinatorial libraries of diabodies, at col. 8, lines 20-23, teach that alterations of the linker in the dimers can lead to an improvement in antigen binding affinity; at col. 54, lines 23-50, teach linkers of various lengths, and that the precise size of the linker that allows proper formation of the diabody is also likely to depend on the sequence of the linker, all of which read on libraries of dual domain nucleic acids, where linkers of various sizes and sequences separate and link the domains, as claimed.

Holliger does not teach explicitly libraries of linkers, and where the linkers of such a library are randomized, where the linkers consist of a "repeated pattern of degenerate repeated triplet nucleotides"; and where the random, "degenerate" coding sequence NNK, where N represents G, A, T and C and K represents T, is repeated (as in the instant dependent claims).

Keck et al., US 6,040,431, throughout the patent and at col. 3, lines 49-57, teach single chain constructs, termed morphons; at col. 4, teach domains, which are regions of TGF-beta superfamily proteins, that are linked by linkers and where the morphon constructions are assembled by joining DNA restriction fragments, at col. 5, teach that the linkers can be of variable lengths and are critical for maintaining the proper tertiary structure of the morphon, at col. 29-col. 30, teach a library of synthetic DNA constructs, that comprise a plurality of DNA molecules encoding different linker sequences encoding polypeptide linkers, and teach that if a plurality of DNA molecules encoding different linker sequences are included into a ligation reaction containing DNA molecules encoding TGF-beta domains, a library of DNA constructs may be obtained,

wherein each of the DNA constructs are connected by different linker sequences, thus reading on a library of linkers of varying sequences, as claimed.

Dower et al., WO 91/19818, throughout the publication, and at p. 2, line 30-p. 3, line 24, teach the construction of oligonucleotide libraries encoding peptides, and, e.g., at p. 4, lines 11-21, and p. 9, line 23-p. 10, line 11, teach generation of peptide diversity by the random, "degenerate" coding sequence $(NNK)_{5-8}$, where N represents G, A, T and C and K represents G and T; and teach that size of the library may become a constraint in the cloning process (see also, p. 11, lines 17-33).

It would have been *prima facie* obvious, at the time the invention was made, for one of ordinary skill in the art to have made and used a library of dual-domain nucleic acid molecules comprising libraries of linkers, where the linkers of that library are randomized, where the linkers consist of a "repeated pattern of degenerate repeated triplet nucleotides", and where the random, "degenerate" coding sequence NNK, where N represents G, A, T and C and K represents T, is repeated.

One of ordinary skill in the art would have been motivated to have made and used dual-domain nucleic acid libraries, wherein the members of a library comprised a linker that was a member of a randomized library of linkers, because Keck et al. teach libraries of synthetic DNA constructs encoding different linker sequences, in order to select linkers capable of conferring the proper tertiary structure of multimers, and Keck teaches that choice of linker is critical for the proper spatial relationship of the linked domains.

One of ordinary skill in the art would have been motivated to have made and used randomized libraries of nucleic acid linker sequences that consist of a "repeated pattern of degenerate repeated triplet nucleotides", because Dower et al. teach a "repeated pattern of degenerate repeated triplet nucleotides", where the random, "degenerate" coding sequence NNK, wherein N represents G, A, T and C and K represents T and G, is repeated in order to generate a diversity of nucleic acids encoding a polypeptide.

One of ordinary skill the art would have been motivated to have made and used a nucleic acid with a repeating random, "degenerate" coding sequence NNK, wherein N represents G, A, T and C and K represents T, because Dower et al. teach a random, "degenerate" coding sequence NNK, where N represents G, A, T and C and K represents T and G, Dower teaches that increased size of a library is an important constraint in cloning process, so that it would be obvious that choosing to limit the value of K to T, as a part of routine optimization, in order to reduce the constraints of a large library, and because Dower already teaches reducing the choice of bases for K, as compared to N.

One of ordinary skill in the art would have had a reasonable expectation of success in making and using a dual-domain nucleic acid library of nucleic acid molecules comprising libraries of linkers, where the linkers of that library are randomized, and where the linker consists of a "repeated pattern of degenerate repeated triplet nucleotides", and where the random, "degenerate" coding sequence NNK, wherein N represents G, A, T and C and K represents T, is repeated, because the

use of linkers to connect multiple domains, linker libraries, and the generation of diversity of nucleic acids through repeats of random, degenerate triplet nucleotides, were all practiced in the art.

12. Claims 10, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Holliger et al.**, U.S. 5,837,242, **Keck et al.**, US 6,040,431, and **Dower et al.**, WO 91/19818, as applied to claims 1-4, 9, 12, 13 and 49 above, and **Turpen et al.**, WO 96/12028 (IDS filed 6/25/2002).

Claims 10, 11, 14 and 15 are drawn to dual-domain nucleic acid libraries, as, for example, in claim 1, and wherein the libraries and the individual molecules of the libraries, are produced in plant cells.

The references of **Holliger et al.**, U.S. 5,837,242, **Keck et al.**, US 6,040,431, and **Dower et al.**, WO 91/19818, are relied upon as in the above rejection under 35 USC 103.

The combined references of Holliger et al., U.S. 5,837,242, Keck et al., US 6,040,431, and Dower et al., WO 91/19818, taken as a whole, do not teach libraries and the individual molecules of the libraries, which are produced in plant cells.

Turpen et al., throughout the publication, and e.g., at p. 3, lines 7-30, pp. 4-5, bridging paragraph, teach using recombinant polynucleotides, comprised within plant viruses, in plant cells in order to produce large quantities of proteins of interest.

It would have been *prima facie* obvious, at the time the invention was made, for one of ordinary skill in the art to have made and used dual-domain nucleic acid libraries,

as, for example, in claim 1, and wherein the libraries and the individual molecules of the libraries, are produced in plant cells.

One of ordinary skill in the art would have been motivated to have made and used dual-domain nucleic acid libraries in plant cells because Turpen teaches using plant viruses containing recombinant nucleic acids in order to achieve high levels of gene expression.

One of ordinary skill in the art would have had a reasonable expectation of success in producing dual-domain nucleic acid libraries in plant cells, because the genetic engineering of plant viruses, and the expression of those viruses in plant cells, were practiced in the art at the time the invention was made.

13. Claims 10, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cwirla et al.**, Proc. Natl. Acad. Sci. USA, vol. 87, pp. 6378-6382, August 1990, as applied to claims 1-4, 9, 12, 13 and 49 above, and **Turpen et al.**, WO 96/12028 (IDS filed 6/25/2002).

Claims 10, 11, 14 and 15 are drawn to dual-domain nucleic acid libraries, as, for example, in claim 1, and wherein the libraries and the individual molecules of the libraries, are produced in plant cells.

The reference of **Cwirla et al.**, is relied upon as in the above rejection under 35 USC 102/103.

The reference of Cwirla et al., does not teach libraries and the individual molecules of the libraries, which are produced in plant cells.

Turpen et al., throughout the publication, and e.g., at p. 3, lines 7-30, pp. 4-5, bridging paragraph, teach using recombinant polynucleotides, comprised within plant viruses, in plant cells in order to produce large quantities of proteins of interest.

It would have been *prima facie* obvious, at the time the invention was made, for one of ordinary skill in the art to have made and used dual-domain nucleic acid libraries, as, for example, in claim 1, and wherein the libraries and the individual molecules of the libraries, are produced in plant cells.

One of ordinary skill in the art would have been motivated to made and used dual-domain nucleic acid libraries in plant cells because Turpen teaches using plant viruses containing recombinant nucleic acids, in plant cells, in order to achieve high levels of gene expression.

One of ordinary skill in the art would have had a reasonable expectation of success in producing dual-domain nucleic acid libraries in plant cells, because the genetic engineering of plant viruses, and the expression of those viruses in plant cells, were practiced in the art at the time the invention was made.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-4, 9-15, and 49 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 54, 56, 60-64, 66, 67, 69, 72, 73, 76-86 of copending Application No. 09/539,382. Although the conflicting claims are not identical, they are not patentably distinct from each other because library of dual-domain nucleic acid molecules, each of which has a first and a second domain, said domains separated and linked by a linker, wherein said linker is a member of a randomized library of linkers, wherein the linkers of the library of linkers vary in size and nucleotide sequence and consist of a "repeated pattern of degenerate repeated triplet nucleotide", and variations thereof, and nucleic acid molecules thereof, **are made obvious by**, as the species anticipates or makes obvious the genus, a polynucleotide comprising a nucleic acid sequence encoding a polypeptide epitope of a B-cell lymphoma surface immunoglobulin antigen, wherein the polypeptide is a two domain single-chain antibody that includes at least part of the VH and VL domains (claim 64), where the domains are linked by an amino acid linker (claim 66), and where the linker is a member of a randomized library of linkers that vary in size and sequence, said library being encoded by nucleic acid sequences consisting of a repeated pattern of degenerate repeated triplet nucleotides, (claim 67), and variations thereof, as claimed in copending Application No. 09/539,382.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

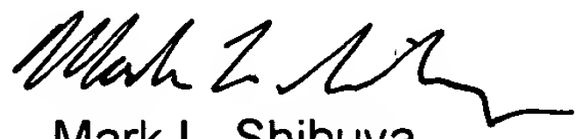
Conclusion

15. Claims 1-4, 9-15, and 49 are rejected.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shibuya whose telephone number is (571) 272-0806. The examiner can normally be reached on M-F, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark L. Shibuya
Examiner
Art Unit 1639

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